EXHIBIT 4

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:   10/613,103

Filing Date: July 7, 2003

Applicant: H. A. Liu

Group Art Unit: 2616

Examiner: Wanda Z. Russell

Title: METHODS   AND   DEVICES   FOR   CREATING   AN
                    ALTERNATIVE PATH FOR A BI-DIRECTIONAL LSP

Attorney Docket: 129250-001018/US

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Customer Service Window   November 18, 2007
Randolph Building
401 Dulany Street
Alexandria, VA 22314
Mail Stop—Amendment

Amendment

Sir:

In response to the Office Action mailed August 16, 2007 the Applicant

submits the following remarks.

A Listing of Claims begins on page 3 of this paper.

A Remarks section begins on page 10 of this paper.

IN THE CLAIMS

The following is a complete listing of pending claims with status identifiers in parenthesis.

LISTING OF CLAIMS

1. (Original) A system for re-routing traffic from a bi-directional Label Switched Path (LSP) comprising:

an originating network device operable to:

re-route traffic traveling along a bi-directional LSP in a forward direction to an alternate path in the forward direction; and

transmit a switch over message along the alternate path in the forward direction to a merging network device responsible for re-routing traffic traveling along the bi-directional LSP in a backward direction to the alternate path in the backward direction.

2. (Original) The system of claim 1, wherein the originating network device is further operable to transmit a second message, along the alternate path in the forward direction, to the merging network device to allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected.

3. (Original) The system of claim 1, wherein the originating network device is a multi-protocol label switched (MPLS) device.

4. (Original) The system of claim 1 wherein the bi-directional LSP is comprised of an LSP carrying traffic in the forward direction and another LSP carrying traffic in the backward direction.

5. (Original) The system of claim 1 further comprising a merging network device operable to receive the switch over message and to re-route traffic traveling along the bi-directional LSP in the backwards direction to the alternate path in the backwards direction based on the switch over message.

6. (Original) The system of claim 5, wherein, the merging network device is further operable to: receive a second message along the alternate path in the forward direction; and allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

7. (Original) The system of claim 5 wherein the merging network device is a MPLS device.

8. (Original) A merging network device operable to: receive a switch over message; and re-route traffic traveling along a bi-directional LSP in a backwards direction to an alternate path in the backwards direction based on the switch over message.

9. (Original) The device as in claim 8 further operable to: receive a second message along the alternate path in the forward direction; and allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

10. (Original) The device of claim 8 wherein, the merging network device is a MPLS device.

11. (Original) A method for re-routing traffic from a bi-directional LSP comprising the steps of: re-routing traffic traveling along a bi-directional LSP in a forward direction to an alternate path in the forward direction; and transmitting a switch over message along the alternate path in the forward direction to a merging network device responsible for re-routing traffic traveling along the bi-directional LSP in a backward direction to the alternate path in the backward direction.

12. (Original) The method of claim 11 further comprising the step of: transmitting a second message, along the alternate path in the forward direction, to the merging network device to allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected.

13. (Original) The method of claim 11 wherein the bi-directional LSP is comprised of an LSP carrying traffic in the forward direction and another LSP carrying traffic in the backward direction

14. (Original) The method of claim 11 further comprising the steps of: receiving the switch over message; and re-routing traffic traveling along the bi-directional LSP in the backwards direction to the alternate path in the backwards direction based on the switch over message.

15. (Original) The method of claim 14 further comprising the steps of: receiving a second message along the alternate path in the forward direction; and allowing traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

16. (Original) A method for re-routing traffic comprising the steps of: receiving a switch over message; and re-routing traffic traveling along a bi-directional LSP in a backwards direction to an alternate path in the backwards direction based on the switch over message.

17. (Original) The method of claim 16 further comprising the steps of: receiving a second message along the alternate path in the forward direction; and allowing traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

18. (Original) A system for re-routing traffic comprising: an originating network device comprising: means for re-routing traffic traveling along a bi-directional LSP in a forward direction to an alternate path in the forward direction; and means for transmitting a switch over message along the alternate path in the forward direction to a merging network device responsible for re-routing traffic traveling along the bi-directional LSP in a backward direction to the alternate path in the backward direction.

19. (Original) The system of claim 18, wherein the originating network device further comprises means for transmitting a second message, along the alternate path in the forward direction, to the merging network device to allow traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected.

20. (Original) The system of claim 18 wherein the bi-directional LSP is comprised of an LSP carrying traffic in the forward direction and another LSP carrying traffic in the backward direction.

21. (Original) The system of claim 1 further comprising a merging network device which comprises means for receiving the switch over message and means for re-routing traffic traveling along the bi-directional LSP in the

backwards direction to the alternate path in the backwards direction based on the switch over message.

22. (Original) The system of claim 21, wherein, the merging network device further comprises: means for receiving a second message along the alternate path in the forward direction; and means for allowing traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

23. (Original) A merging network device comprising: means for receiving a switch over message; and means for re-routing traffic traveling along a bi-directional LSP in a backwards direction to an alternate path in the backwards direction based on the switch over message.

24. (Original) The device as in claim 23 further comprising: means for receiving a second message along the alternate path in the forward direction; and means for allowing traffic to travel along the bi-directional LSP in the backward direction when a failure is no longer detected based on said second message.

25. (Original) A system for re-routing traffic comprising: means for re-routing traffic traveling along a bi-directional LSP in a forward direction to an alternate path in the forward direction; means for transmitting a switch over message, along the alternate path in the forward direction, for re-routing traffic traveling

along the bi-directional LSP in a backward direction; means for receiving the switch over message; and means for re-routing traffic traveling along the bi-directional LSP in a backwards direction to the same alternate path in the backwards direction based on the switch over message.

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REMARKS

A. The Section 102 Rejections

Applicant thanks the Examiner for withdrawing the rejections of claims 1-25 under 35 U.S.C. §102(a).

B. The Section 103 Rejections

Claims 1-25 were rejected under 35 U.S.C. §103(a) based on U. S. Patent Publication No. 2003/0063613 to Carpini et al ("Carpini") in combination with U.S. Patent No. 6,895,008 to Enoki et al ("Enoki"). Applicant disagrees and traverses these rejections for at least the following reasons.

Each of the claims of the present invention includes the feature of, among other things, the use of a switch-over message to re-route traffic traveling along a bi-directional LSP. Neither Carpini nor Enoki discloses or suggests the use of such a switch-over message.

As the Applicant presently understands the Examiner's position, the Examiner relies upon Carpini for the disclosure of the claimed switch-over message.

Contrary to the Examiner's position, however, Carpini does not disclose a switch-over message that is used to re-route traffic. The excerpts cited in the Office Action (paragraph 47, lines 15-19) appear to relate to the detection of a "fault indication" message, not a switch-over message. The former relates to fault detection; the latter relates to the re-routing of traffic along an alternative, bi-directional LSP in a backwards direction.

In the Office Action the Examiner nonetheless states that Carpini's "fault indication signal" can be interpreted as a switch over message in a "broad interpretation".   Applicant disagrees. Though claims may be interpreted broadly, any interpretation must be reasonable in light of the specification, *In re Hyatt,* 54 USPQ2d 1664, 1667 (Fed.Cir. 2000).

According to the specification, a switch-over message is transmitted by an originating network device along an alternate path in a forward direction to a merging network device responsible for re-routing traffic traveling along a bi-directional LSP in a backward direction. In sum, the switch-over message does not identify a fault; rather it is used by a merging network device to re-route traffic. It is, therefore, unreasonable to interpret a fault indication message as a switch-over message.

Because the combination of Carpini and Enoki does not disclose or suggest the claimed switch-over message, the Applicant respectfully requests withdrawal of the pending rejections and allowance of claims 1-25.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John E. Curtin at the telephone number listed below.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

CAPITOL PATENT & TRADEMARK LAW FIRM, PLLC.

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